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DEPARTMENT OF NATURAL RESOURCES

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Inspection Report

Minerals Regulatory Program

Date Submitted: **07/22/2013**

Reviewed JH

Mine Name: Topaz	Permit Number: M/023/0003	Permit Fees: Paid		
Operator Name: Materion Natural Resources	Inspection Date: May 16, 2013	Bond Amount: \$1,398,000.00		
Inspector(s): Paul Baker, Tom Nicolaysen, Kass Wallin	Time: 11:15 AM to 1:30 PM	Bond Escalation: 01/01/16		
Others: John Wagner	Mine Status: Active	Mostly clear, 70s		
Elements of Inspection		Evaluated	Comment	Enforcement
1. Permits, Revisions, Transfer, Bonds		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Public Safety (shafts, adits, trash, signs, highwalls)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Protection of Drainages/Erosion Control		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Deleterious Material		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Roads (maintenance, surfacing, dust control, safety)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Reclamation		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Backfilling/Grading (trenches, pits, roads, highwalls, shafts)		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Soils		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Revegetation		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Purpose of Inspection

The operator requested final release for some areas, so our purpose was to look at whether revegetation efforts have been successful in accordance with the plan.

Inspection Summary

The revegetation success standards for this mine do not include cover measurements, so we did not measure vegetation cover. The main criteria we were able to assess were effectiveness for the postmining land use and erosion control. Although erosion control is not specifically mentioned in the plan, basic watershed protection and erosion control are requirements of the rules.

The primary species we encountered on the Rainbow Dump and other areas examined were crested wheatgrass, fourwing saltbush, Indian ricegrass, Palmer penstemon, bottlebrush squirreltail, and rubber rabbitbrush. We found some cheatgrass, halogeton, and annual kochia, but these species were not dominant.

Weeds, especially a weedy Hordeum, were most common in areas where manure had been applied. We discussed where seed for this species had come from since it is not prevalent in the area and decided it was probably in the manure.

Conclusions and Recommendations

I recommend that the operator not use manure. Most of the increased cover in areas that received manure was from weeds.

The plan requires that the following be carried out and documented: 1. Confirmation that seed bed preparation was done in accordance with the plan. 2. Confirmation of the chemical and physical characteristics of soil replaced in each disturbed area and demonstration that soils are not saline. 3. Recording of rainfall quantities. 4. Determination of the effect of salt uptake from underlying waste materials on soil quality.

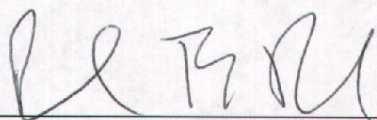
I conclude that the vegetation meets the requirements for final release, but the operator needs to provide the information listed above.

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Inspector's Signature:



CC: John Wagner, Materion

File: /O/M023-Juab/M0230003-Topaz-brush/inspections/ins-05162013.pdf



This is a ramp where manure was applied. Most of the dried vegetation on the left side is a species of *Hordeum*, possibly foxtail barley, *Hordeum jubatum*.



This photo and the others show the varying amounts of perennial vegetation on the dumps. Most of the grasses in these photos are crested wheatgrass.

